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ABSTRACT

The Postdoctoral Faculty Fellowship Program at Northeastern University, which provided opportunities for professional development and research/publication to full-time minority and women faculty, is described. The program, which was federally funded by the Experimental Program for Opportunities in Advanced Study and Research in Education, enabled participants time-out from the home institution with full-time research support for one academic year. Nine minority and women postdoctoral fellows received support during the 3-year project. To facilitate professional development (tenure and advancement), the program provided opportunities for, and assistance in, improving research skills, initiating and writing research proposals, and presenting research findings in colloquia and other forums. Finally, opportunities for association were provided by supporting fellows' participation in professional meetings where they could disseminate their work, expand their professional networks, and enhance their future participation and recognition in educational research and decision making. Program evaluation results are discussed, along with policy implications. (SW)

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NATIONAL INSTITUTE OF EDUCATION

Experimental Program for Opportunities in
Advanced Study and Research in Education

FINAL REPORT

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Postdoctoral Faculty Fellowship Program

Institute for the Interdisciplinary Study of Education
Northeastern University
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July 1, 1979 - September 30, 1982

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Abstract

The Postdoctoral Faculty Fellowship Program at Northeastern University, housed in the Institute for the Interdisciplinary Study of Education (IISE), was designed to provide opportunities for professional development/skills enhancement, research/publication, and association to minority and women faculty employed full-time in institutions where heavy emphasis is placed on teaching and service. The program had several unique features. It provided a period away from the home institution, together with full-time research support for an academic year. In order to ensure maximum productivity, quick and direct immersion in ongoing research was arranged through the use of existing research/training units at the University. To facilitate professional development (tenure and advancement), the program provided opportunities for, and assistance in, improving research skills, initiating and writing research proposals, and presenting research findings in colloquia and other forums. Finally, opportunities for association were provided by supporting Fellows' participation in professional meetings where they could disseminate their work, expand their professional networks, and enhance their future participation and recognition in educational research and decision making.

Nine minority and women Postdoctoral Fellows received support during the three years of the project. All of them completed the program. Two have returned to their home institutions, six have made successful transitions to other academic or administrative positions, and one is employed part-time while seeking a full-time academic position. All have made significant contributions to educational research in areas having important policy implications, including multicultural education, teacher "burnout"/transition, the educational needs of ex-offenders, international education, early childhood education, high technology and education, minority medical education, and the educational attainment of black students.

Evaluation of the model in terms of project objectives revealed the following strengths: relatively generous research support in the form of "time out," resources, and staff assistance enabled the Fellows to carry out and disseminate their research; excellent opportunities for intra- and extra-institutional networking facilitated professional association; and, extensive exposure to a large group of interdisciplinary scholars and researchers enhanced professional development. The model, however, was not without problems: Fellows did not find the opportunity for using existing research data bases as attractive as anticipated; the academic year (nine months) was not long enough to complete and write up research projects; and, the mentor-mentored distinction led to negative feelings among some Fellows and faculty.

With regard to policy implications, it is suggested that NIE: design programs that address professional "efficacy" as well as professional "enfranchisement" for minority persons and women; continue to fund programs designed to increase the inclusion, recognition, and advancement of minority persons and women in educational research; and, direct funding toward the further testing of selected strategies that have been shown to be effective.

Despite guiding legislation, government regulations and affirmative action programs, by the mid 1970's, data from several sources (AERA, 1976a; Vetter and Babco, 1975; ACE, 1973) confirmed that academic institutions had made little progress in increasing the numbers of minority persons and women on their faculties. A significant increase in the number of doctorates awarded to women and minority group members (Wilkinson, 1978; McCarthy and Wolfe, 1975) was not reflected in the percentage of these groups holding top-level administrative or tenured faculty positions. Women were still "clustered in the lower professional ranks, holding eight percent of the full professorships and sixteen percent of the associate professorships (AAUW, 1978:2)." Women also outnumbered men as instructors and lecturers and in part-time positions where tenure opportunities are limited (AAUW, 1978). The situation for minorities in higher education was even worse. Between 1968 and 1972, minority representation on college faculties increased only from 2.2 to 2.9 percent (ACE, 1973). Later data have confirmed this glacial rate of increase in the number of minorities on college faculties and their marked concentration in lower, non-tenured ranks and in institutions where the primary work activity is teaching (Williams, 1982; Wilkinson, 1978). In one field (sociology), minority women, especially, are underrepresented on university faculties. They are "disproportionately employed by the federal government and by private, nonprofit agencies. Both majority and minority women are more likely to work at two- and four-year colleges (Williams, 1982)."

Many barriers exist to the upward mobility and professional advancement of academic women and minority persons. Perhaps the most critical barriers, however, are those of research and publication. Historically, scholarly research and publication have been determining factors in the academic advancement and tenure of faculty (Gappa, 1977). Yet, the opportunity for research and resultant publication is dependent upon released time from teaching and service responsibilities in order to develop research ideas, locate funding sources, and generate data bases. For those who hold faculty positions in academic institutions where heavy emphasis is placed on teaching and service, such released time is usually not available. Statistical data indicate that minority persons and women are more heavily represented in these teaching-oriented, often smaller, institutions and that, within these institutions, they are generally found in non-tenured, lower-ranked positions (Gappa, 1977; Robinson, 1973; Astin and Bayer, 1972). For this group of academics there is a strong likelihood that teaching and service responsibilities, including advising, will supercede research for a significant portion of their postdoctoral years (Wilkinson, 1978; Spurlock, 1976).

The most productive institutions in educational research tend to be the more elite universities where minority persons and women are not heavily represented (West, 1978). Although women make up 34 percent (AERA, 1978; AERA, 1976b) and minority persons about 10 percent (AERA, 1982) of the membership of the major educational research organization, and although their participation in professional associations has increased (AERA, 1982; Williams, 1982), they tend not to be represented in educational research publications in any degree proportionate to their participation (AERA, 1978). This is further evidence of the need to increase the active involvement of minority and women faculty in the research enterprise. In so doing, the aim is not only to foster the kinds of productivity which are necessary for retention and promotion (Blackburn, et al., 1978) but also to influence the nature and quality of the educational research being carried out and disseminated.

By virtue of their positions in educational institutions, minority persons and women become highly qualified and experienced in the processes of learning and teaching, yet, as a consequence of the barriers they confront, their insights and skills are not brought to bear on the very crucial educational problems with which they are so intimately involved. Furthermore, they are inhibited from progressing professionally within their disciplines, and, in some cases, within their institutions. Achieving educational equity thus requires going beyond conducting research on access to educational opportunities and the acquisition of skills. Representation and participation in such research by the very groups on whom it is focused must be assured. Equity also requires that minority persons and women who have had the opportunity for advanced training realize commensurate professional advancement and recognition.

In 1977, in response to a mandate of the National Research Council to "increase the participation of minority persons and women in the research and development efforts of the nation," the Minorities' and Women's Program of the National Institute of Education (NIE) designed an experimental program for advanced study and research (NIE, 1977) which was intended to:

- make possible the identification and evaluation of promising strategies by funding a range of project types;
- encourage a diversity of project designs by funding a broad range of institutions (e.g., colleges and universities, state and local education agencies, and nonprofit research organizations);
- promote institutionalization and long-term institutional commitment by funding short-term demonstration projects;
- increase networking and the establishment of mentor relations;
- encourage interdisciplinary approaches to the solution of educational problems; and,
- facilitate the entry of minority persons and women into activities that would have broad policy significance in education.

The NIE Program existed for about four years. Ultimate judgment as to its success in carrying our the National Research Council's mandate must await long-term evaluation of the impact of funded projects on the participation and advancement of women and minorities in educational research. This final report is a first step toward evaluating the impact of one such project carried out at Northeastern University.

The Northeastern University Model: Institute for the Interdisciplinary Study of Education

Using funds provided by the National Institute of Education's Experimental Program for Opportunities in Advanced Study and Research in Education, the Northeastern University model involved establishing an Institute for the Interdisciplinary Study of Education (IISE) which housed a Postdoctoral Faculty Fellowship Program intended to increase the participation of minority persons and women in research on education.

IISE brings to bear the perspectives and methods of a variety of disciplines on the study of critical questions in education and provides a forum for the exchange of ideas and information of interest to educational researchers. Research, training, and development, as well as the sponsorship of seminars, workshops, and colloquia, constitute the primary activities of the IISE. The IISE also engages in evaluation, dissemination and consulting. Seeking to incorporate some of the worthy features suggested by the NIE Experimental Program, IISE's objectives are:

- to increase the participation of minorities and women in research on education;
- to provide an interdisciplinary forum for the continuing exchange of information on differing perspectives, methodologies, and findings in educational research;
- to provide opportunities for professional development and skills enhancement to minority persons and women;
- to provide opportunities for research and publication experience to minorities and women in order to facilitate advancement and security in their careers; and,
- to provide opportunities for association in order to enhance the recognition and increase the professional involvement of minorities and women in educational research and decision-making.

The use of existing research/training units was a basic feature of the model and was, among other things, an effective mechanism for making use of available data bases--a strategy encouraged by NIE. Much of the sponsored research at the University was, and is, housed not in the academic departments but in research centers and institutes. At least in the social sciences, relatively few faculty are directly involved in the activities of these units (most have full time staff), although some faculty members do have links to the units through, for example, consulting arrangements and graduate student placements. The model thus draws upon and expands relationships already in existence. Use of these existing units provided the best possibility for involving our own faculty and the Postdoctoral Faculty Fellows quickly and directly in ongoing research. As a mechanism that might increase, and ultimately institutionalize, the involvement of faculty and the participation of minority persons and women in these sponsored research activities, this aspect of the model held particular appeal. A number of existing

research/training units at the University were affiliated with IISE and served as research locations for the Fellows. These included:

Center for Applied Social Research (CASR)
CASR is engaged, among other activities, in a study of access to higher education with data gathered from a nationally representative cohort of high school seniors, the National Longitudinal Study of the High School Class of 1972 (NLS 72). The 1980 High School and Beyond data are also being analyzed. Fellows may work, too, with data from the Family-School Socialization Project.

Center for International Higher Education Documentation (CIHED)
Among the ongoing research projects of CIHED, which is a repository of the research files of the International Encyclopedia of Higher Education are: a world-wide inventory of nontraditional or alternative forms of higher education in 26 countries; a questionnaire study of the role of the multinational corporation in the education of foreign nationals and a global assessment of the status of academic women.

Center for Labor Market Studies (CLMS)
CLMS staff have been involved in a variety of research projects, including an analysis of labor force, employment, and unemployment developments in the New England region that have implications for the formulation of employment and training policy.

Center for Urban and Regional Economic Studies (CURES)
CURES was founded to foster academic inquiry into urban and regional economic problems. It is housed in the Department of Economics, but utilizes the resources of the entire University. The staff's interests and experience are wide-ranging, with special expertise in the areas of energy, transportation, housing, crime, regional development, urban education and the policy-making process, and urban public finance. Primary clients for the Center's research services include municipal government agencies, regional planning bodies, federal government agencies responsible for urban and regional economic development and nonprofit foundations.

Committee on the Freshman Year (COFY)
COFY was assigned the task of evaluating the effect of both compensatory and noncompensatory curricular programming on the retention and attrition of freshman in general and of the various freshman constituencies in particular. The academic experience of women and minority students, especially those in particular curricula (e.g., mathematics, science, engineering, business), were compared with the general University freshman experience. COFY did not participate in the IISE project after the first year.

Cooperative Education Research Center (CERC)
CERC conducts research concerning cooperative education and other forms of work-related education. The specific nature and substance of work undertaken varies: the impact of cooperative education on the values of liberal arts students; the impact of cooperative education on the career development of graduates; and factors associated with the development of viable programs of cooperative education.

Teacher Corps Project (TCP)
TCP was a federally funded project designed to strengthen the educational opportunities available to children in areas having high concentrations of low income families. Specifically, the goal was to improve the competency of educational personnel in providing multicultural education. A staff of "chroniclers," participant observers, was used throughout the multiyear life of the TCP to document changes in the behavior and thinking of the teachers, students, community leaders, and Northeastern University faculty involved in the project.

Urban Schools Collaborative (URSCO)
URSCO was established at Northeastern to coordinate the University's involvement in the court ordered desegregation of the Boston Public Schools. The program is designed to assist in administration and instruction in those schools with which the University is paired. The Boston-Bouve College of Human Development Professions assists in the implementation of programs, focusing on a work-study approach.

Women's Career Program (WCP)
WCP, funded under a three year grant from the Fund for the Improvement of Postsecondary Education, identified and trained women for management and professional positions and worked closely with employers to this end. WCP did not participate in the IISE program after the first year.

Faculty affiliations, another basic feature of the model, provided additional resources for IISE and enhanced its interdisciplinary character. Faculty members from several academic departments not only served as consultants to the Fellows but also worked with them and with each other to develop and execute interdisciplinary research in education and to participate in appropriate grants competitions. Again, the objective was to build on existing relationships.

The direction of IISE, too, reflected its basic interdisciplinary philosophy. The Director was a sociologist and the Associate Directors were from the Departments of African-American Studies and Foundations of Education.

To insure that the expertise and judgments of members of relevant groups would be brought to bear on IISE planning and activities and on the selection of Postdoctoral Faculty Fellows, an Advisory Board was established. A broad range of professional perspectives was represented, from four constituent groups: 1) three representatives of the affiliated research/training units; 2) one faculty member from each of the three rounding academic departments

(African-American Studies, Foundations of Education, and Sociology/Anthropology); 3) two professional educators affiliated with an educational institution other than Northeastern University; and, 4) two community persons with an interest in education. The Directors were ex officio members of the Board.

Because the fellowship program sought to support, in particular, the research activities of faculty members in institutions where heavy emphasis is placed on teaching and service, Fellows were specifically recruited from the following two target populations:

- Pre-Tenured Faculty Members in "Transitional" Colleges and Universities. Fellowships were awarded to faculty members with two or three years of full-time teaching experience in transitional institutions, i.e., institutions in which there is an emerging emphasis on research as a criterion for advancement, particularly tenure and promotion.

- Faculty Members (All Ranks) in "Primarily Teaching Oriented" Colleges. Fellows were also drawn from small colleges which have traditionally emphasized teaching, especially women's colleges, religiously-affiliated colleges, community colleges, and those serving minority populations.

Preference was given to faculty who had had prior training or experience pertinent to educational research and who were in positions that did not permit full use of their experience and capabilities.

The IISE model focused primarily on the NIE-funded Postdoctoral Faculty Fellows, but participants also included Predoctoral Fellows, as well as staff and undergraduate work-study and coop students. (Coop students alternate periods of full-time work with periods of full-time study.) Inclusion of these internal target groups was part of Northeastern University's cost sharing contribution to the NIE grant and was regarded by the IISE Directors as a necessary element in any program aimed at increasing the participation and recognition of minority persons and women in educational research. Though the needs and activities of the Postdoctoral Faculty Fellows were paramount to the functioning of IISE during the grant period, the needs of predoctoral students and other inexperienced professionals were also taken into account. Specific strategies were used to implement the program objectives for Postdoctoral Fellows and experienced professionals, on the one hand, and Predoctoral Fellows and inexperienced professionals on the other (see Figure 1). The presumption was that supportive and consultative relationships would develop not only between faculty and Postdoctoral Fellows but also between these groups and other participants. Faculty and Postdoctoral Fellows, for example, could work with Predoctoral Fellows who, in turn, could teach and work with the undergraduate assistants. All could participate in and learn about research. To increase the participation of minority persons and women in research we must start early and provide appropriate support throughout.

To insure that the Fellowship opportunities would be made available to those qualified women and minority faculty interested in and in need of them, the Northeastern University program undertook a systematic recruitment plan.

Figure 1

Strategies for Implementation

Participants	Opportunities for		
	Professional Development/ Skills Enhancement	Research/ Publication	Developing Professional Associations/ Networking
Predoctoral Students Inexperienced Professionals	Coursework --Credit --Non-Credit	Assistantships/ Internships	Mentoring
Postdoctoral Trainees Experienced Professionals	Workshops Consultation Tutoring	Fellowships --Funding --Facilities --Assistance	Conference Participation Site Visits Colloquia

Applicants were sought through advertisements and announcements in scholarly and professional publications, including many of the vehicles suggested by Epstein (1979) and through letters and announcements mailed to targeted individuals, organizations, and academic institutions. In the third year, to increase the number of minority applicants, as urged by NIE, phone calls were made to individuals whose names were supplied by the National Association for Equal Opportunity (NAFEO) and to those minority persons who had inquired but not applied in previous years.

A subcommittee of the Advisory Board, consisting of one member from each constituent group, was charged with selecting the Fellows from the pool of eligibles. For candidiates who met the eligibility criteria, each of the four members of the selection committee independently reviewed each applicant's folder, using a five-point rating scale. Those individuals whose average rating was less than 3.00 were eliminated from consideration. From the group of semifinalists who received a rating of 3.00 or higher, a slate of nominees and alternates was chosen by the selection committee and confirmed by the full Advisory Board.

Among the factors taken into account in the committee's discussions regarding final selections were the following: whether the prospective Fellow's interests and proposed activities had a focus; whether IISE and its affiliates could provide an appropriate match for the prospective Fellow's needs and interests; whether the prospective Fellow had sufficient research experience and demonstrated productivity to enable her/him to undertake <u>independent</u> research (this was a factor, for example, in placement of Fellows in research/training units; some units have more established research programs and more experienced research staff than others); and, finally, whether the appointment would further the objectives of the Fellowship Program. The committee was also concerned that the final selections be interdisciplinary (i.e., that there be sufficient diversity among the Fellows so that their backgrounds would span several disciplines and their interests coincide with those of several of the affiliated research/training units).

Transition into the Northeastern University program was facilitated by a three week orientation period prior to a full academic year of residence. The first week of orientation was kept open and informal to allow Fellows to settle in and find housing, if necessary. During the second week, the Fellows were systematically exposed to the personnel and ongoing activities of each of the research/training units affiliated with IISE. Individual visits and interviews were arranged with each of the units in which a Fellow was interested. Throughout the three week period, formal contacts were complemented by frequent informal interaction, including a welcoming reception to which all interested parties on the campus were invited. Then, based on their interests and expertise and in consultation with IISE Directors, unit personnel, and affiliated faculty, Fellows chose a specific research location for the duration of their academic year residence at the University. They became involved in the ongoing interdisciplinary research activities of the unit, and were encouraged, where possible, not only to expand or reorient present research but also to use the resources of the units (e.g., available data) to initiate research on related concerns. With the collaborative assistance of IISE staff, unit personnel, and a faculty consultant(s), each Fellow carried out a research project(s).

Evaluation of the Northeastern University Model

As with all experimental programs, a critical feature of the Northeastern University model was evaluation of its effectiveness in terms of its stated objectives. Ongoing evaluation occurred on three levels, utilizing both internal and external input. In addition to submitting quarterly reports, at the end of each program year Fellows provided written reports on every aspect of the program. These evaluations were an invaluable mechanism for assessing the effectiveness of the program from the minority and women participants' perspective. Predoctoral Fellows, student assistants and staff also provided quarterly reports. In addition, the IISE Directors met regularly to monitor and assess the day-to-day operations of the program, the progress and needs of individual participants, and the overall effectiveness of specific program components. This ongoing assessment was coupled with intensive evaluative meetings of the Directors at the beginning and end of each program year. Notes from these discussions formed the basis for an analysis of program effectiveness from the Directors' perspective.

IISE also underwent two external evaluations conducted under the auspices and direction of the funding agency. These evaluations involved on-site visits in which the evaluation team observed program activities, interviewed staff and Fellows and reviewed past accomplishments and future plans for the program. The first, conducted by two staff members from L. Miranda Research Associates, Inc., took place during the first quarter of the grant project. The evaluation team conducted interviews, individually and in groups, with Postdoctoral Fellows, faculty affiliates, and staff and Directors. They also attended IISE's first open house in its new quarters. There they were able to meet staff members from several of the affiliated research/training units, other affiliated faculty, interested members of the University community, and members of the Advisory Board. A second evaluation team, from Inter-America Research Associates, Inc., visited midway through the second year. They interviewed both Predoctoral and Postdoctoral Fellows, faculty affiliates and research/training unit staff members, and the Directors and other IISE staff. They also conducted phone interviews with Fellows from the previous year. Early in the program the Project Officer from the NIE Minorities' and Women's Program visited the University.

Evaluations from internal sources (Directors, Fellows, and others) were consistently carried out in terms of IISE's program objectives, oulined above. The present evaluation and discussion is framed in terms of those five objectives.

Participation of Minorities and Women

Minorities and women were involved at every level and in every phase of IISE's activities. Both experienced and inexperienced professionals were introduced to IISE's program and encouraged to become involved in educational research. As the data below document, IISE was generally quite successful in increasing the participation of minority persons and women in educational research.

Advisory Board. As can be seen in Table 1, minority persons and women were well represented on the Board. This was critical in view of the important part this group played in the selection process outlined earlier.

Table 1

Background Characteristics of Advisory Board Members

(Race/Ethnicity and Sex)

SEX	RACE/ETHNICITY		
	Black	White	Total
Male	2	3	5
Female	4	3	7
Total	6	6	12

Postdoctoral Fellows. The recruitment plan generated between 70 and 80 inquiries each year. These inquiries yielded an average of 40 applications per year. Of this number, about 16 to 20, fewer than half, met the Fellowship's eligibility criteria. The group of semifinalists, those who received an average rating of 3.00 or higher on a scale of 5.00, numbered from 10 to 12 candidates each year. From this group a slate of four to six nominees and alternates was chosen by the selection committee and confirmed by the full Advisory Board. A profile of the nominees and alternates is given in Table 2.

Table 2

Profile of Nominees and Alternates

(Race/Ethnicity and Sex)

SEX	RACE/ETHNICITY			
	Black	Hispanic	White	Total
Male	5	1	0	6
Female	2	1	7	10
Total	7	2	7	16

Clearly the most useful vehicle for producing candidates who met the program's eligibility criteria was The Chronicle of Higher Education. The Employment Bulletin of the American Sociological Association was the most effective tool for recruiting within a particular discipline. Other disciplinary outlets did not yield as high a number of applications. Whether this is a function of the publication, or of the discipline, is not clear. The job opportunities in economics, for example, may be much more numerous and provide far greater remuneration than the IISE Fellowship. Both of the high-yield publications had short deadlines--announcements could be submitted up to a week before the date of publication. This may be the reason why they were more effective, especially in the late spring and early summer when we were recruiting.

Our resources permitted recruitment of only three Postdoctoral Fellows per year, a number, as Epstein (1979) observes, small enough to permit easy integration with the permanent staff, not so large as to become a self-contained cohort. This latter concern was further minimized because, although the Fellows had their offices at IISE (not the original plan but necessitated by space constraints throughout the University), each Fellow was associated with a different research/training unit. That, plus their different disciplinary backgrounds, contributed to a situation in which each of them had contact with a different mix of professional research personnel and consultants.

Over the three years that IISE received external funding, nine Postdoctoral Faculty Fellows participated in the project--three black males, two black females, and four white females (see Table 3). All of the Fellows held doctoral degrees and came from the target populations. In fact, all but one came from "primarily teaching oriented" colleges. Two came from small, private, four-year colleges, three from public four-year colleges, and two from public community colleges. One Fellow came from a religiously-affiliated small college and the final Fellow from a large, urban, "transitional"

Table 3

Postdoctoral Faculty Fellows

Summary of Characteristics

Fellow	Degree/ Year	Race Eth.	Sex	Status/Origin Rank	Status/Origin Tenure	Institution/Origin Group	Institution/Origin Type	Institution/Origin Location	Status/Current Rank	Status/Current Tenure	Institution/Current Group	Institution/Current Type	Institution/Current Location
*1	Ed.D. 1979	B	M	Asst.	No	2	Priv.	MA	Assoc.	No	1	Pub.	OH
*2	Ph.D. 1975	B	M	Assoc.	Yes	2	Rel.	TN	Assoc.	Yes	2	Rel.	AL
*3	Ph.D. 1970	W	M	Assoc.	Yes	2	Pub.	NY	Left Academia		-	-	MA
*4	Ed.D. 1975	W	F	Assoc.	No	2	Priv.	VA	Asst.	No	1	Pub.	SC
5	Ph.D. 1976	W	F	Asst.	No	2	Pub.	NY	Asst.	No	2	Pub.	NY
*6	Ed.D. 1978	B	F	Asst.	No	1	Priv.	MA	Asst. Dean (Student Affairs)		3	Priv.	MA
7	Ed.D. 1979	B	M	Asst	No	2	Pub.	MA	Asst.	No	2	Pub.	MA
*8	Ed.D. 1971	W	F	Assoc.	Yes	2	Pub.	MA	Assoc.	Yes	1	Pub.	MA
9	Ed.D. 1980	B	F	Instr.	No	2	Pub.	MD	Instr.	No	2	Pub.	MD

*Moved to new position within one year of completion of Fellowship. These data are, of course, not complete for third year Fellows.

university. All of the institutions were in the eastern part of the United States. At the time of appointment, only three of the Fellows were tenured, two in four-year public institutions, one in a religiously-affiliated small college. Two others were in tenure-track positions.

Overall, though we succeeded in recruiting some highly talented individuals who fit the program's eligibility criteria, we were somewhat surprised and disappointed at the size of the applicant pool, particularly after screening for eligibility. Our eligibility criteria were perhaps too restrictive. Though most of our applicants were women, and, to a lesser extent, minorities, some of the applicants were not from our target populations, but rather were individuals just out of graduate school looking to make a transition <u>into</u> academia rather than <u>within</u> it. Still others were unemployed Ph.D.'s, part-time instructors, and individuals in other kinds of nonacademic and nontenure track positions--persons who were <u>not</u> making it in academia. It was obvious that many of them needed the type of program that IISE was offering and that they might have benefitted greatly from participation. What became clear was that there were individuals with doctoral level training in education and related disciplines who were even more disadvantaged than the populations we had targeted. Given the statistics on access of minorities and women to academia, documented above, the profile of applicants perhaps should not have been a surprise.

With regard to our target populations, phone conversations with a number of individuals who inquired but did not apply indicated that many of them, especially those with families, were not able to and/or could not afford to relocate for such a short period of time, with such a modest stipend and with limited moving expenses. Not surprisingly, only one of the nine Fellows relocated to Boston with a family. All of the other individuals with families, women and men, either came alone or were from the immediate area. This was a particular constraint in trying to recruit minority faculty. One way of removing this constraint would be to select Fellows from the institution housing the program or from other colleges and universities in the immediate geographic area. Although this strategy would make relocation unnecessary, it would, at the same time, deprive Fellows of the opportunity to be away from their usual involvements. It is, however, a possibility that must be considered when funds are limited.

The fact that notification of awards did not correspond to the academic calendar negatively affected the recruitment plan in yet another way. When advertising is delayed until late June (as becomes necessary due to late notification), a large pool of potential applicants is automatically cut off. Many individuals are already committed for the next academic year. One minority male was unable to accept an offer because his home institution would not give him leave or hold his position for the following year. Still another did not apply because his department chair indicated that a leave would not be approved were a Fellowship to be offered.

<u>Affiliated Faculty</u>. More than 60 percent of the faculty affiliated with IISE were minority persons and women (see Table 4). Although more than half of this group was tenured by the end of the grant period, still, only one is a full professor. At the same time, however, some progress has been made in that three women faculty affiliates (one black, two white) have been tenured and promoted during the period of the grant, one each in African-American

Studies, Foundations of Education, and Sociology/Anthropology. Senior faculty served as "advocates" (Nichols and Golden, 1982) for junior faculty in the tenure and promotion process. Affiliated faculty have also conducted research having important policy implications in education, including work on women in math and science based careers, violence in the schools, and mentoring in academia. A study of minorities in math and science based careers is in the planning stage. Faculty have also collaborated on preparing proposals from an interdisciplinary perspective.

Despite these positive aspects/outcomes, we must also recognize that four of the six minority faculty affiliates have left the academic ranks, all prior to tenure consideration and all for administrative positions, one at Northeastern University, the others at several highly regarded institutions. While there has undoubtedly been some movement to more elite institutions, one cannot deny that reappointment tensions were a factor, at least in some instances. Expectations for research and publication created pressure and conflicted with teaching and service responsibilities. Minority individuals formerly in the classroom are no longer there. The University has clearly lost ground in the recruitment and retention of minority faculty.

Table 4

Profile of Faculty Affiliates

Sex	Women				Men				Total				GRAND
Race	Black		White		Black		White		Black		White		TOTAL
Tenure	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
College/Department													
Arts and Sciences													
African-American	1	1			2				3	1			4
Economics				1			1	1			1	2	3
Sociology/ Anthropology	2		1	3			2	1	2		3	4	9
Human Development													
Educational Administration							1				1		1
Foundations of Education				3				2				5	5
TOTAL	3	1	1	7	2		3	5	5	1	4	12	22

Predoctoral Fellows. Five individuals (two white females, one black female, and two white males) received Northeastern University-funded Predoctoral Fellowships during the three year period of the project. Two were

majoring in sociology, and there was one each in educational administration, counselor education, and special education. One of the sociology candidates and two of the education degree candidates are at the dissertation stage. The second sociology student has almost completed her doctoral coursework and is making good progress. The student in counselor education has left the University.

Staff. The "each one teach one" philosophy of IISE, and the efforts to increase the participation of minority persons and women in educational research, extended to the staff as well. The three Directors were women (one black, two white) and shared the responsibility for implementing IISE's objectives. As one Fellow noted in her evaluation: "The IISE Directors had an obvious commitment to minorities and women. They carried out their beliefs with practice, particularly in their hiring of staff. I hope that their example has rubbed off on me." Through work-study and coop opportunities, IISE sought to expose a range of undergraduates to the operations of a research enterprise and, where possible, to include them in the research activities of the faculty and Fellows. The number of assistants assigned to IISE in any term varied, depending on the availability of work-study funds (part-time or coop). Students were affiliated for periods of anywhere from three months to two years, sometimes alternating coop with part-time work-study while in school. Among those who spent two quarters or more were three black females, five white females, one black male, and two white males. Most are still in school and progressing with their studies. Virtually all are planning graduate school at some point, in a variety of fields. Of those who have graduated, one is already in graduate school in sociology and one has been successful in securing employment as a research assistant for a private research and consulting firm.

The Provision of an Interdisciplinary Forum

IISE's affiliated research/training units and affiliated faculty provided interdisciplinary expertise and perspective as well as research opportunities and faculty consultation in several disciplines. Research opportunities spanning economics, sociology, anthropology, higher education, human development, international education, cooperative education, teacher education and multicultural education were made available through the use of existing research/training units at the Univerity.

As can be seen in Table 4 above, affiliated faculty from several disciplines were available to serve as consultants. Initially, these faculty came from those academic departments most closely related to the development and implementation of the model: African-American Studies and Sociology and Athropology in the College of Arts and Sciences and Foundations of Education in the College of Human Development Professions. The type of cooperation required by the model drew upon and expanded relationships already in existence among these departments and the research/training units. In keeping with the experimental nature of the model, faculty from other departments (e.g., Economics and Educational Administration) as well as other research/training units were welcomed and incorporated into the activities of IISE over the course of the project. More than twenty faculty members from five departments and two colleges were available for consultation at various times over the three year period of the grant. Throughout, IISE's efforts remained interdisciplinary and collaborative--collegial.

Opportunities for Professional Development/Skills Enhancement

It is obvious that, without the requisite background in statistics and in quantitative and qualitative methods, one's participation in research remains superficial. Greater sophistication in research methods brings greater understanding of and greater involvement in the research process, and perhaps greater responsibility in supervising research.

Opportunities for skills enhancement were provided to the Postdoctoral Fellows, when necessary, through consultation and informal training and tutoring sessions with experienced faculty affiliates and research/training unit staff (see Figure 1). Sometimes Fellows opted to sit in on courses in areas where their basic skills were deficient (e.g., computer programming, multivariate statistics). Perhaps the most outstanding feature in the Fellows' evaluations was their assessment of their professional growth as a result of participation in the IISE program. In every instance, the Fellows indicated that the program had provided opportunities not only for the acquisition of new research skills but also for professional development. In their assessments, they placed emphasis on their enhanced images as researchers and scholars.

Generally, Fellows described their participation in the program as central to their professional development. It provided a transitional year that would permit them to improve their professional situation or to seek a professional affiliation that more appropriately fit their new images and needs as professionals. There was, in every instance, a clear indication that participation in the IISE program was critical to this process of professional mobility and advancement. For some of the Fellows, this meant a chance to make a distinct career transition: to another kind of institution (e.g., from a small, teaching-oriented college to a large, research-oriented university); or to another kind of work (e.g., out of full-time teaching to a position in government or in educational research and development). Others chose to return to their home institutions or to institutions similar to their home institutions. Each of these types of transitions, as well as others (e.g., career moves into university administration or into a management position in private industry) was made by Fellows in the Northeastern University program. Postdoctoral participants were enriched by the Fellowship year experience and emerged from the year more fully integrated into the educational research community and better prepared to make the kinds of transitions they wanted to make.

Within a year of completing their Fellowship activities, six of the nine Fellows had moved to new positions. Two of the third year Fellows are looking to make such a move and are actively involved in searching for new positions. Clearly, virtually all of the Fellows sought to use the year in a transitional way. One of the three Fellows each year moved from a primarily teaching oriented four year college to a tenured or tenure track position in a "transitional" university (public in all instances) where increasing emphasis is being placed on research and publication as criteria for tenure. One Fellow has moved to an administrative position at an eminent university and still another to a management position in a major corporation (see Table 3). Except in 1981-1982, when the job market constricted considerably, the Fellows were remarkably successful in making worthwhile career transitions. At the same

time, given the present economy and declining enrollments in higher education, there is underemployment and potential unemployment. Good offers have not been forthcoming for those Fellows who are looking to make career changes at the present time.

For the predoctoral/inexperienced participants, formal coursework was the primary means of developing and improving research and other skills and of acquiring important substantive knowledge. The financial support provided for Predoctoral Fellows made it possible for all but one of them to complete their doctoral level coursework. These individuals improved both their quantitative and qualitative research skills.

Opportunities for Research/Publication

Epstein (1979) emphasizes the presence of ongoing research programs and the availability of adequate resources as factors which might influence the rate and quality of Fellows' research productivity. Time, funding, and resources (e.g., in the form of a postdoctoral fellowship) are what it takes for this group to write and publish. In addition, for Fellows to function effectively in the host institution, they must be accorded appropriate status and have available the same kinds of opportunities for research productivity offered to permanent, full-time faculty. IISE's Postdoctoral Faculty Fellowships provided these.

The Northeastern University program was designed to provide Fellows with a range of ongoing research projects and with a variety of substantive and methodological options through the use of existing research/training units. This feature was economical in terms of time and money: research data and a diverse group of experienced and supportive personnel were already in place. Fellows did not need to generate either research ideas or data unless they wished to. The model, however, was not without its problems. The research/training units varied greatly in their purpose, in the level of sophistication of the research being done, and in the emphasis they placed on research, in contrast to training, as a major activity. There was, thus, some question about the kinds of units that would be appropriate to include. The question of "appropriateness" revolved around whether or not it was necessary for units to be actively engaged in research, or whether it was appropriate to include units which presented opportunities for conducting research, but which might expect the Fellows themselves to design and implement that research. In the latter context, Fellows would have to have had sufficient background to enable them to function independently. Those units involved primarily in research and having available data were clearly viable choices. Others were less so.

Sufficient time and appropriate facilities and resources were also provided in order to create an environment in which individuals could research, write, and publish (i.e., be productive). Although Fellows did not have to seek funding to conduct their research, they were required to develop a specific research plan. Whether they decided to expand or reorient ongoing research or to initiate new research on related concerns, the grant provided staff assistance and some funds for research expenses. Predoctoral Fellows (and work-study assistants) were available to provide research assistance. Computer time was provided and technical assistance was available from several

sources--IISE staff, personnel from affiliated research/training units, the computation center, and affiliated faculty.

Even at that, however, the "time out" provided may not have been enough. Most of the Postdoctoral Faculty Fellows were experienced professionals who had their own research ideas and who wanted to work in areas of personal interest. Choosing to initiate their own research meant that it could take several months to prepare and write the research proposal they were required to present. More than a third of the Fellowship year was sometimes expended just in framing their research plans and writing their research proposals, not to mention getting access and permissions where required (e.g., from the public schools or from the corrections department). Alternatively, a research proposal might have been required as part of the application process. That would have defeated the purpose of one of the key features of the IISE model, using existing research centers involved in ongoing research. To propose research related to ongoing projects or activities would have required prior exposure to more detailed information about the research/training units and their research activities and possibilities. Providing that information as part of the recruitment process did not seem feasible.

Problems arose, too, in trying to provide assistance to individuals who, in some cases, were accustomed to doing everything for themselves. In these cases, Fellows had to get used to using such assistance and support services. Some never did; they continued to do things (library work, computer runs, sometimes typing) for themselves. Others learned to use the available resources to excellent advantage. Allocating staff time and services to the Fellows, an at times difficult balancing of needs and demands, was also worked out to most everyone's satisfaction.

The Postdoctoral Faculty Fellows reported that they found the resources and money available for research supplies, computer time, research assistance, secretarial support, and library resources to be more than adequate. In every instance, the Fellows attributed their increased levels of productivity during the program year to the availability and accessibility of program sponsored resources. While the Fellows generally seemed to feel that the physical facilities were adequate, there was some concern expressed about the lack of private offices and an occasional inability to concentrate due to the proximity of the central work area. (Even with the critical space problems at the University, IISE was assigned adequate space which was furnished at University expense. It was structurally impossible, though, to convert that space into private offices.)

Epstein (1979) asserts that the same kinds of opportunities for research productivity offered to permanent, full-time faculty must be made available to Postdoctoral Fellows. At Northeastern University, as at many other institutions, there is great variation in teaching responsibilities and research opportunities among the full-time faculty in different fields. Indeed, one Fellow pointed out that Northeastern University was not able, as she presumably expected, to provide the kinds of resources and facilities that might be available at a more elite institution. The challenge in a case such as Northeastern University's is thus, ironically, to make available to regular, full-time faculty--especially minority persons and women--the kinds of opportunities and support available to Postdoctoral Fellows. Clearly, despite the limitations in resources and facilities, there is an expectation that, for

tenure and promotion, Northeastern University faculty must meet standards of research and publication very similar to those at more elite institutions. An externally funded postdoctoral program thus becomes an exemplar of what might exist for all faculty. Therefore, as NIE rightly notes, the goal of institutionalization is particularly critical, if minority persons and women, as well as other faculty, are to receive the released time, support services, and funds for professional travel that will enable them not only to accomplish the research and publication needed for their tenure and promotion but also to contribute to the knowledge base in their disciplines.

To make clear the origin and status of Fellowship recipients, the model built this message into the name--Postdoctoral Faculty Fellowships. The Fellows, though not without some initial confusion, had most of the privileges of full-time members of the faculty--social security and health benefits, use of the library and computer, and parking facilities, all as part of Northeastern University's cost sharing contribution. The social security and health benefits, especially, were a substantial cost. The level of remuneration provided Fellows, with tax and other benefits (airfare to and from campus, if needed, research support and expenses, conference travel, and research and staff assistance), was, for most, within a reasonable range of their usual salaries. The amount of the stipend ($15000) plus other benefits could not be set to match that received at their home institutions, as suggested by Epstein (1979), due to limitations imposed by the size of the federal grant. The Fellows were not, however, punished by having to sustain major financial losses; neither were they lavishly rewarded. The possibility of follow-up assistance to Fellows, including continued access to university facilities and faculty consultants, was also built into the program to facilitate post-Fellowship transition. Several Fellows took advantage of these resources during the summer after their Fellowship year.

The scholarly activity of all of the Postdoctoral Fellows increased significantly during their IISE program year. Generally, the Fellows indicated that the "time out" to produce scholarly research was a major strength of the program. Their reported productivity during the academic year was focused on writing papers and presenting them at professional meetings (average 3 papers per Fellow) and on drafting proposals for future funding (average 1 per Fellow). Over the three year period of the the grant, seven papers were submitted for publication. Of that number, four were accepted for publication before the end of the grant. Additionally, the Fellows participated in and presented lectures, workshops and colloquia within the University, at other academic institutions, at professional conferences, and at agencies in the Boston area.

It is important to note that most Fellows indicated that they were able to use the time to develop a strong research data base and direction which they would pursue once they returned to their home institutions or to a new position. Thus, it is probable that the post-program level of scholarly productivity for the IISE Fellows will not vary significantly from their program year level of productivity. If anything, the level will probably increase as the Fellows begin to make closure on work begun during the program year. As evidence of this, since completing the Fellowship year, three of the Fellows have had their proposals funded, one by NIE; two more papers have been accepted for publication; and, the work of two of the Fellows is likely to be published in monograph form--one by a university press and one by the American

Association for the Advancement of Science. The possibility remains, however, that, once resettled in their home environments, or new but similar ones, without the resources and support available during the Fellowship year, their productivity may in fact decrease or level off.

Predoctoral Fellows were also able to engage in research and, to a lesser extent, publication activity through assistantship positions funded by the University as its cost-sharing contribution to the grant. Two masters theses were completed and three dissertation proposals prepared by Predoctoral Fellows. Several paper presentations were made at professional meetings. In addition to progressing in their own degree programs, Predoctoral Fellows were expected to provide research assistance to the Postdoctoral Faculty Fellows. Coop and work-study positions made it possible, too, for IISE to include undergraduate students in its research activities. These individuals were able to observe and support the research of the Fellows and faculty. Those who were with IISE for a longer period of time were able to participate more fully in the research process. Both graduate and undergraduate students made a significant contribution to the IISE research enterprise.

Opportunities for Association

In order to promote and facilitate the professional visibility and association of participants, IISE provided for intra- and extra-university networking and mentoring. Intra-university networking was effected through the affiliations of a diverse group of experienced professionals from several disciplines who were available to serve as role models and consultants for Fellows (although one Fellow questioned whether most of these individuals, given their rank and nonelite institutional affiliation, had sufficient professional "clout"). As the roster of affiliated faculty continued to be expanded, opportunities for association increased. Lack of compensation led only one faculty member to refuse to become involved. For most faculty, compensation was not a concern and they agreed to donate their time willingly. We tried to be particularly careful though that faculty members in our own institution, especially minority persons and women, would not be exploited. In the end, however, that was probably not the case. Most of the individuals involved with IISE on a regular basis have been minorities and women. They have often discovered that supporting and promoting the work and the careers of others is ultimately done at the expense of one's own time and professional development. Not only does one sacrifice the time needed to do one's own research but, in the case of IISE, one also focuses one's energies on interdisciplinary activities that may be hidden from those in one's own discipline or department who make decisions on merit and promotion.

Multiple joint mentoring was the norm. For Fellows, IISE staff, research/training unit personnel and affiliated faculty, the collaborative effort created on campus a greater awareness of colleagues and their work and generated genuine friendships. Among the beneficial by-products were a clearer understanding among all faculty of the nondepartment-based research going on and increased communication and cooperation among the research centers themselves. By carrying out research that otherwise might not have been done, Fellows enhanced the research centers, the University, and their disciplines. More specifically, their research concerns served as focal points for proposal

development by IISE, allowing University faculty members, especially minority persons and women, to become involved in research which they might not otherwise have undertaken.

But there are problems with a model that provides for such a diversity of associations. "Split loyalties" and the feeling of "too many cooks" can develop. Just getting everyone together for a meeting presented problems. Fellows reported sometimes being confused by what they perceived to be conflicting suggestions coming from IISE Directors, research/training unit personnel, and affiliated faculty. The Directors and these others, in turn, sometimes experienced ambiguities in their roles vis a vis each other. Given that each Fellow identified with a different research/training unit, there was little overlap in "mentoring" groups other than the IISE Directors.

Generally, Fellows assessed positively their individual interaction and consultation with affiliated faculty and program Directors. However, in some instances, there was concern expressed regarding an initial period of adjustment during which the Fellows and affiliated faculty had to move beyond the dynamics of a "teacher-student" relationship to those of a "colleague to colleague" relationship. This was especially so in the first year. In no instance was there any indication that the level of effort required to work through such professional intergroup dynamics deterred, or otherwise limited, scholarly productivity or that it created a long-term negative situation. Indeed, those associated with IISE sought to learn from this experience and to use it constructively. Several papers and a symposium came about as a result of these early discussions.

Use of the term "mentor" itself presented some difficulty for certain participants. Designating affiliated faculty as mentors was thought to be offensive by at least one faculty member who was to serve in that capacity, as well as by one of the Fellows. This criticism, after some discussion, led to the substitution of the word "consultant." Directors and affiliated faculty sometimes experienced a tension between the roles of mentor and colleague. How does one who serves as a "mentor" critique the work of "colleagues" without being perceived as threatening to their professional status? This particular issue is dealt with in more detail below.

Because proposals had to be approved, and defended at times, especially during the first year, Fellows felt they were being monitored too closely. Although in large part Fellows worked with a great deal of autonomy, program Directors who were ultimately responsible for the quality and quantity of the research produced had to build in such quality control checks. Again, how to fulfill such a responsibility without being perceived as threatening to the Fellows' professional status was a constant challenge to the Directors.

Mentoring relationships were less problematic with the Predoctoral Fellows and other inexperienced professionals. In many ways, a hierarchical relationship and sponsorship was presumed with these groups. All graduate students are required to have thesis/dissertation advisors. These advisors are expected to supervise the student's research, monitor their academic progress, and facilitate their professional growth.

To enhance professional visibility and association beyond the University, funds were made available for Postdoctoral Fellows' conference travel. Most of

them attended three or more national and/or regional professional meetings per year in their own disciplines and in their areas of research interest. All attended the annual meetings of the American Educational Research Association (AERA). Indeed, IISE maintained strong visibility and participated actively in AERA during the three grant years. The Directors and a number of Fellows have given papers and have organized and/or participated in three recent symposia at AERA. During the first year of the grant, when AERA was in IISE's home city, IISE hosted a hospitality suite and a series of informal colloquia for NIE minority and women participants. Even Predoctoral Fellows and undergraduate assistants were able to attend when AERA was in Boston and, more recently, in New York City. Because it is best when professional participation and association can can start early, IISE tried to facilitate the involvement of graduate and undergraduate students in professional activities.

How much time Fellows and staff should be encouraged to expend on developing networks and contacts is problematic. Time spent on developing associations can reduce time for productivity. For those Fellows whose major objective is transition to another institution, association can be terribly important. For those who want primarily to increase their research productivity, any nonresearch related activity (meetings, conferences, workshops) can be a distraction. Fellows were encouraged to decide for themselves how they wanted to balance these activities.

Conclusions

Although the IISE model differs considerably from, and evolved independently of, that discussed by Epstein (1979), it does incorporate many of the elements she cites as being necessary for the successful implementation of an opportunity structures model for postdoctoral programs in educational research. The ultimate test of the strengths of the model will of course be the extent to which it increases the participation of minority persons and women in the educational research enterprise. There are encouraging signs. All of the Fellows completed the Fellowship year. All of them already have made significant contributions to the fund of dependable knowledge.

The key assessment which emerges from the participants' evaluations is that the most positive features of the IISE Program were the resources available to support basic and developmental research needs; the time available to be immersed in a supportive research environment; and the money available to promote networking and the formation of professional associations with colleagues outside of their normal professional setting. The IISE environment proved to be more stimulating and supportive of their professional and research needs than their home institutions.

Overall the results of the internal evaluations (and what we know of the external evaluations) indicate that the program was effective in increasing the participation of minority persons and women in educational research. The long term consequences for the career development and participation of the Fellows in academia must wait upon future studies of their productivity and career paths.

The success of the Northeastern University model and the value of some of the specific strategies employed must also be considered in relation to the features identified by the NIE Experimental Program for Opportunities in Advanced Study and Research in Education (1977) as being important not only for enhancing equality of opportunity in the educational workforce but also for increasing the relevance, credibility, and quality of educational research. Six such features were spelled out.

Identifying Promising Strategies

Two strategies, in particular, were tried out in the Northeastern University program. First, in order to give well-trained and experienced professionals the opportunity to develop as scholars, to conceive and execute research, and to write and publish, the Northeastern University program provided "time out" (an academic year) to minority persons and women situated in colleges and universities where heavy emphasis is placed on teaching and service. Having time, as well as appropriate resources (e.g., research expenses, computer time) and support staff, was deemed by all involved in the Northeastern University program to be the most promising strategy for increasing the inclusion and recognition of minority and women educational researchers.

A second strategy, using existing research/training units, was conceived as an effective mechanism for making use of available data bases--a strategy encouraged by NIE. Quick and direct immersion in ongoing, largely externally sponsored, research was intended to maximize Fellows' productivity in a relatively short period of time (nine months). Although still viewed as a promising strategy, this feature of the program did have some limitations. The defined nature of the research possibilities within the research /training units was not particularly appealing to experienced professionals who had their own ideas and wanted to "do their own thing." Most of the Postdoctoral Fellows found the restricted range of research possibilities within the units to be confining. Working in areas of personal interest was usually more appealing. The Northeastern University program dealt with this by remaining flexible and by defining project boundaries in very broad terms. Even at that, however, most of the Fellows found the requirement that they affiliate with a research/training unit cumbersome and constraining. We conclude, and suggest, that this strategy might be more promising with Predoctoral Fellows and Postdoctoral Fellows just out of graduate school where professional and scholarly interests are just beginning to take shape--those individuals looking to make a transition into, rather than within, academia. Our target population was largely a more senior, more experienced group of professionals with more established research interests. What they lacked was time to frame and pursue their interests.

"Time out" was what the Fellows needed and wanted. In fact, an academic year was probably not a long enough period of time. It often took Fellows several months to frame their research plans and, in some instances, to obtain permission to do their research. As much as a third of the academic year sometimes passed before a Fellows' research got underway. A longer Fellowship period (e.g., two years) would make it possible for Fellows to make closure on their research.

Appropriateness of Model to Institution

Implementation of an interdisciplinary model such as IISE required a large and diverse university community. Northeastern University was able to provide this. Several strong, and improving, departments were associated with the program. While it is true, as some have observed, that many of the affiliated faculty did/do not hold the most senior rank (i.e., Full Professor), that is not surprising when one considers that most of those involved with IISE are minority persons and women. Only in the past decade have these groups been represented in academia in somewhat more substantial numbers. Only very recently have members of these groups begun to join the tenured ranks, here or elsewhere. It was precisely the experiences of these groups at Northeastern University that led to the proposal to increase the participation of minority persons and women in interdisciplinary research on education. Our proposal emphasized needs perceived here--by faculty teaching heavy loads in a "transitional" institution (i.e., one in which there was "an emerging emphasis on research as a criterion for advancement, particularly tenure and promotion.") In the applicant pool, however, we found many more individuals from "primarily teaching-oriented" colleges than from "transitional" universities. We also found even more who did not fit either of these categories--unemployed Ph.D.'s, recent Ph.D.'s, part-time instructors and individuals in other kinds of nontenure track positions in academia. Although the model was appropriate for faculty at our own institution, perhaps faculty in similar positions at other institutions could not afford to relocate for such a short period of time, given the modest stipend and limited moving expenses provided. To meet the needs of faculty such as those at our own institution, a larger stipend would be necessary. Another possibility would be to limit Fellowship positions to an institution's own faculty, or to those in the immediate geographic area, so that relocation would not be necessary. The unfortunate aspect of such a restriction would be that it would deprive Fellows of an opportunity to be away from their usual involvements.

Institutionalization

NIE funding was predicated on the assumption that the institutional recipients would make good faith efforts to assure that the structures and strategies supported by the grant would outlive the funding. This was done in recognition of the fact that lasting solutions to complex problems require long-term commitment and effort. The entry and involvement of minority persons and women in significant numbers in educational research cannot be realized by the short-term funding of even large numbers of minority and women researchers. At Northeastern University the structures and strategies developed and implemented under the auspices of the IISE have, in the year since NIE funding ceased, been continued and supported, although at a much reduced level. Seed money has been made available to support efforts by the Directors and affiliated faculty to develop proposals and to generate new sources of funding. Unfortunately these efforts coincide with a restriction in external funding, declining enrollments and consequent budgetary restrictions internally. Notwithstanding these financial "hard times," the University has inaugurated an internally funded Research and Scholarship Development Fund (RSDF) to provide seed money for faculty research development. In 1979-80, the Fund consisted of only $15,000. For the past two years, the fund has allocated $200,000 per year

to faculty research. It is significant that this fund gives priority to supporting the work of junior faculty and of minority and women faculty members. Proposals to study topics related to minority and women's concerns are also given special consideration. In addition, the College of Arts and Sciences has recently instituted one-quarter Research Appointments (a kind of mini-sabbatical) for junior faculty. These awards are intended for pretenure faculty in the fourth or fifth year and are awarded on a competitive basis. The RSDF grants and the Research Appointments represent the kinds of support needed by faculty in "transitional" institutions.

It should be noted that the interdisciplinary nature of the Northeastern University model has resulted in some extremely valuable and potentially durable institutional practices. Relationships were formed across departmental and college lines, especially among minority persons and women, that have led to joint paper writing, program development, and the offering of interdisciplinary colloquia. These intra-institutional collegial relationships will survive and continue to provide a source of new ideas and academic and emotional support to those involved.

On a more disappointing note, minority representation on the faculty, especially among the tenured ranks, has not increased. In some departments, in fact, there are fewer minority faculty than previously. Indeed, some of IISE's minority faculty affiliates have left the University in the past two years. While efforts continue to increase the numbers of minority faculty, the results thus far are still inadequate.

Finally, a number of extra-institutional patterns have developed among NIE grantees. A national network of minority and women researchers is evolving. This network has functioned primarily to exchange and disseminate information about individual projects and products and to share experiences at national meetings such as AERA. Over time this network has the potential for growing into a stable and much needed system of mutual research support.

Interdisciplinary Approaches

If any one feature of the Northeastern University model has had a salutary effect on the Northeastern University community it is its interdisciplinary nature. Virtually all the faculty affiliated with IISE have become increasingly involved in interdisciplinary activities. Several were instrumental in developing a new interdisciplinary doctoral program in Law, Policy, and Society. Others are directly involved, often in administrative roles, in interdisciplinary programs in women's studies, Asian studies, and African-American studies. A number of research proposals reflecting interdisciplinary perspectives have also been prepared. Through the shared interests of these groups, including IISE, the whole Northeastern University community has become more engaged in interdisciplinary enterprises. The University's Research Council set up a committee to study ways of facilitating and promoting interdisciplinary activities on campus and the Provost's Office has instituted an Interdisciplinary Colloquium series. Still a further manifestation of these new directions is a National Endowment for the Humanities (NEH) grant, awarded to the College of Arts and Sciences, to develop a core curriculum and to promote interdisciplinary course development and co-teaching among faculty from different departments and colleges. The grant

is intended, especially, to encourage such cooperation and cross fertilization between faculty in the sciences, engineering and technology, on the one hand, and those in the humanities and social sciences on the other. All of us have become more sensitive to the need for interdisciplinary approaches to complex issues. Much more than previously our work is informed and enriched by an interdisciplinary perspective.

Minorities' and Women's Perspectives on Policy

Nine minority and women Postdoctoral Fellows received support during the three years of the NIE project at Northeastern University. All have made significant contributions to the pool of educational research. They have brought to bear their unique perspectives as minority persons and women on a broad range of issues having important policy implications, including multicultural education, teacher "burnout"/transition, the educational needs of ex-offenders, international education, early childhood education, high technology and education, minority medical education, and educational attainment of black students. Affiliated faculty too have engaged in interdisciplinary research on topics of policy significance, including women and minorities in math and science based careers, violence in the schools, and mentoring in academia.

Networking and Mentoring

A concern with the issue of "mentoring" grew out of our involvement in the Postdoctoral Faculty Fellowship Program. Our proposal to NIE was written in response to a grants competition which stressed, among other things, the importance of mentoring to the postdoctoral experience. We incorporated the term into our proposal and attempted to build mentor-protege relationships into our model. From the first, Directors, affiliated faculty, and Fellows felt uncomfortable with the "forced" nature of the mentor-protege relationship and with the hierarchical and dependent status it implied. We searched for a more professionally egalitarian way to provide Fellows with what they needed (e.g., resources and access to colleagues) and for a better word to describe the types of relationships we hoped to foster.

After much discussion, we settled on the term "consultant." We sought a relationship which would give Fellows maximum flexibility, information, and independence--a situation in which faculty consultants would be available and accessible on a more cooperative and collegial basis, and without any condition or expectation of reciprocity. To give Fellows a sense of efficacy, they would (in the nature of hiring a consultant) determine the nature of the relationship and, within the constraints of faculty time, the degree of involvement of the faculty consultant. Though we probably did not always succeed, our goal was a helpful and supportive relationship based on cooperation and mutual respect.

Our experience stimulated us to try to understand better the functions of patrons in academia and to analyze their effectiveness for enhancing the career development of minority persons and women. A typology was developed (see Figure 2) utilizing the dichotomies of faculty power (authority or influence)

Figure 2

Patrons in Academia: A Typology

POWER OF CONTROL	FACULTY ORIENTATION	
	PROFESSIONAL (Cosmopolitan)	ORGANIZATIONAL (Local)
AUTHORITY (Formal)	PROFESSIONAL AUTHORITY	ORGANIZATIONAL AUTHORITY
	1. Guru (Carter, 1982)	1. Sponsor (Shapiro, et al, 1978)
	2. Mentor (Shapiro, et al, 1978)	2. Gatekeeper (Collins, 1982; Epstein, 1974; Reisman, 1956)
	3. Godfather, Rabbi, or Priest (Kantor, 1977)	
	4. Exemplar (Levinson, 1978; Schmidt and Wolfe, 1980)	
INFLUENCE (Informal)	PROFESSIONAL INFLUENCE	ORGANIZATIONAL INFLUENCE
	1. Networking (Kaufman, 1982)	1. Guide, or Host (Nichols and Golden, 1982; Levinson, 1978; Shapiro, et al, 1978)
	2. Peer Pals (Shapiro, et al, 1978)	2. Consultant, Interpreter, Advisor (Nichols and Golden, 1982; Schmidt and Wolfe, 1980)
	3. Colleagues	3. Advocate (Nichols and Golden, 1982)

and faculty orientation (professional or organizational). Four sources of academic patronage emerged (Nichols and Golden, 1982).

- Professional Authority. Such patrons derive their professional authority from their formal offices and bring to bear on their patron relationships their cosmopolitan orientation and their acknowledged status in their disciplines. Such individuals are, in many ways, beyond the organization. Their charisma, eminence, independence and (presumed) mobility make them immune from organizational pressures and constraints. These are the gurus or priests of Carter (1982), the rabbis or godfathers of Kanter (1977), the exemplars of Levinson (1977), or the mentors, in the restricted sense used by Shapiro, et al. (1978)--influential persons able, when they choose, to circumvent the formal structures. As Freidson (1968) asserts, professional authority is at its highest when the number of those who hold it is small in relation to demand. Patrons with professional authority are limited in number and, because of their prestige, concentrated in certain institutions. They are accessible to, and probably willing to take on, very few proteges.

- Organizational Authority. Academic patronage based on one's office and on one's knowledge of, and loyalty to, the organization can be very effective. These might be the sponsors referred to by Shapiro, et al. (1978); or,in a negative sense, the gatekeepers of whom Collins (1982) has spoken. In fact, especially in the local context, such patrons might even be able to advance, or end, careers by fiat (e.g., a dean or provost who overrules a negative decision of a tenure committee; or, alternatively, a dean or president who unilaterally declares, "No new positions in Department or College X").

- Professional Influence. Professional influence is informal and discipline based. It consists of one's network of colleagues and peer pals (Shapiro, et al., 1978) within one's discipline and constitutes mutual support among individuals of more or less equal status.

- Organizational Influence. Organizational influence derives from informal power and specialized knowledge of a local context. Individuals who have organizational influence are the hosts or guides mentioned by Levinson (1978) and Shapiro, et al. (1978), the consultants or advisors referred to by Schmidt and Wolfe (1980). They are individuals who can put their unique knowledge of politics and procedures to work on behalf of junior professionals in their own institutions.

In an ideal situation, all four types of patrons would be available to minority persons and women. Unfortunately, though there may be evidence that professional authority works (Levinson, 1978; Kanter, 1977), there is also evidence that it works only for select groups and only at select types of

institutions (Broad, 1982). Access to professional authority is not governed by democratic or egalitarian principles (Shapiro, et al., 1978). As Levinson accurately notes:

> Most often,...an intense mentor relationship ends with strong conflict and bad feelings on both sides. The young man may have powerful feelings of bitterness, rancor, grief, abandonment, liberation, and rejuvenation...The mentor, for his part, finds the young man inexplicably touchy, unreceptive to even the best counsel, irrationally rebellious and ungrateful. By the time they are through, there is generally some validity in each one's criticism of the other (Levinson, 1978: 100-110).

It is difficult in such a relationship to move from the role of subordinate to that of peer. Mentors can inhibit independence and professional autonomy. And the evidence indicates that even more than others, minority persons and women are expected, in their patron relationships, to remain subordinate (e.g., the "research associate" syndrome) and dependent (Hall, 1969; Epstein, 1974; Reskin, 1979; Collins, 1982). When one adds to this the knowledge that minority persons and women constitute only a very minute percentage of individuals with professional authority, one readily concludes that the notion of patron as guru or mentor remains an exclusive, elitist, and, ultimately, not very practical option for minority persons and women.

A patron system should not be necessary. There should be equality of opportunity. Beyond this, for minorities, certainly, and probably for women too (especially in some fields), the viability of the patron system, at least in terms of formal authority, cosmopolitan or local, is limited by the number of potential patrons. There are not enough gurus or sponsors to go around. If we have to wait for individuals with formal authority to foster the entrance and advancement of young professionals, whether in the professional or the organizational context, then there are many fields in which we may never have minority or women faculty.

Admittedly, it might be most advantageous to have <u>large numbers</u> of individuals with professional authority who would be willing to put their efforts to work and to use their clout to advance the careers of minority persons and women. If entree to the academy could, practically, be accomplished in that way, one might compromise, individually and collectively, on such issues as dependence and obligation, in order to achieve professional enfranchisement (if it is <u>possible</u> to achieve <u>true enfranchisement</u> in this way). Likewise, if there were sufficient numbers of individuals with organizational authority, and if their gatekeeper tendencies could be overcome, sponsors could be put to work to accomplish our objective. That perhaps might be our more short term goal. But, the record at most institutions is not encouraging. Minority and women academics have higher unemployment rates, lower salaries, lower academic ranks and lower rates of promotion and tenure than majority males with similar qualifications (AAAS, 1978). Practically, using sponsors is just not a viable alternative for minority persons and women. It is not a solution which can be implemented on

a large scale. There are not enough likes available in most institutions. Sponsorship also implies a selecting, an anointing, which remains dependent, elitist, and exclusive.

Given the present circumstance, we argue that the effective use of organizational influence (e.g., by what we term faculty guides) may be the best strategy available for accomplishing the inclusion of minority persons and women in academia. As Page (1946-1947) notes, each organization

> has its own internal traditions, its own caucuses, cliques, and pressure groups, its own status-systems and compelling values, its own routines and "grape-vine" procedures, which are the inmate's very own and which are hidden to the outsider and the fresh newcomer.

This may be local information, but it is important information. Guides can help one to learn the ropes, the unwritten rules and expectations. They can tell you where to look, how to look, who to ask, and when to do what (Schmidt and Wolfe, 1980:47). They do not seek dependency but offer support. They are often anonymous. Like sherpa guides who take expeditions up the Himalayas, they "know the terrain." Unlike the sherpa guides, and perhaps unfortunately, academic guides usually are not paid for their services. Everybody needs them. At the same time, it is not an exclusive or dependent process. The sherpa can work with one individual or with several, and every individual participant must participate actively in the process. Likewise, an individual can have more than one guide. Harlan and Weiss (1980:34) and Mokros, et al. (1981:13), for example, cite "multiple helping relationships" as being characteristic of the mentoring experience of women. They suggest that having "multiple mentors" may be an adaptive alternative in that one's fate is not dependent on the professional progress of a sole mentor.

A further advantage of the concept of guide is that guides are everywhere. They do not have to be in one's field. In fact, the guide may not even have to be a professional. "In this respect, secretaries and administrative assistants are often overlooked as potential and actual patrons for young professionals" (Shapiro, et al., 1978:55). Given the crisis proportions of their situations, minority persons and women cannot afford to overlook any possibilities.

It can be argued that guides are not very powerful people and that minority persons and women need access to power, formal or informal (Carter, 1982). For the present, however, sufficient numbers of advocates with formal power are just not going to be available. Guides may not have formal power, but they may have informal power (i.e., influence). Informal power is, nonetheless, power. Like the sherpa, they can help one climb the mountain. They may not be ableto "get you there," but they can show you the way. They may not be able to make you a star, but they can tell you what you need to become one. They cannot give you formal power, but they can outline for you the steps necessaryto achieve it (whom to cultivate, where to publish, what meetings to attend, what committees to serve on, etc.).

From a theoretical point of view, how important professional authority might be in "making it" in academe depends in part on how one defines success. If we mean by success only that we want to increase the numbers of minority persons and women, employed, tenured, and promoted at elite institutions, then clearly the strategy we propose will never work. That is just not the way elite systems operate. If, on the other hand, we define success more broadly to include not only getting some minority persons and women into elite institutions but also as employing, retaining, tenuring and promoting minority persons and women in the whole range of institutions in which they work, then, in the absence of patrons with formal power, the patron as guide might present the best--in some contexts, the only viable alternative available for enhancing the career development of minority persons and women.

Policy Implications

The diversity of projects funded under the NIE program provides a "natural" experiment for answering a number of questions about the impact of policy on research: 1) to what extent have institutionalized barriers that traditionally prevented minority persons and women from participating fully in educational research been breeched, i.e., to what extent have women and minority persons achieved "professional enfranchisment" by their involvement in these projects; 2) to what extent have members of the target groups developed a sense of their own personal power or ability to make a difference, i.e., to what extent has their "professional efficacy" as academics and/or researchers been enhanced; and 3) to what extent, if at all, does the nature of the research undertaken by participants differ from "mainstream" white, male dominated research (Golden, et al., 1981).

The issue of enfranchisement was not, and cannot be, directly confronted by the NIE program. Institutional barriers cannot be altered solely by providing individuals with training. Structures at home institutions must be changed. As noted above, supportive facilities and resources have not been made accessible historically to minority persons and women in academia, even though in many instances their home institutions were capable of providing such an environment. The federal government, under the auspices of the Minority and Women's Program, acknowledged this problem by insisting that institutional grantees demonstrate ways in which efforts would become "institutionalized." It is critical to determine the extent to which this objective has been realized in order to assess the impact of the NIE program on issues of enfranchisement. NIE and other federal agencies must continue to insist that institutionalization be a critical component of any program to increase the inclusion and recognition of minority persons and women.

While certain NIE funded projects have directly or indirectly attempted to deal with developing a sense of efficacy amongst participants through such mechanisms as leadership training courses, increasing scholarly productivity, and by providing appropriate role models, they have done so, for the most part, in a vacuum which does not address the relationship between professional enfranchisement and efficacy. What happens, for example, if we enhance the individual's concept of self as leader and return that individual to an environment which denies that person leadership? It is possible that such persons will be, in a sense, worse off than they were prior to participating in the program. Questions such as this must be addressed. Finally if, as we

assume, the NIE Program will have an effect on the nature of, and approach to, educational research, we must assess whether this happens. Do minority persons and women researchers engage in other than "mainstream" research? Do they take new and different approaches, i.e., work collaboratively, formulate unique questions, plan studies of particular importance to minorities and women? Or, as some have suggested, do they, once more well trained, enfranchised, and self assured, become part of the mainstream and simply begin to compete more effectively with their white male colleagues. These are empirical questions that remain to be answered.

As the NIE Minorities' and Women's Program documents its impact on education and educational research, it is important that the productivity and progress not only of Fellows but also of project directors and other affiliates be taken into account. We have learned at Northeastern University that the opportunity for minorities and women to receive and direct external grants is important. The visibility and the "clout" that accrue to such constituencies as a result of such awards must not be overlooked. Nor should we overlook the significance of the on-campus networks and coalitions which are also an outgrowth of the grant experience. On our campus, the NIE grant, from the beginning, brought together minority and women faculty in a cooperative and mutually enhancing relationship.

NIE should not stop providing funds for programs to increase the participation of minority persons and women in research on education. Instead, based on final assessment of the Experimental Program for Advanced Study and Research in Education, NIE should direct its resources to supporting the most promising strategies. The model implemented at Northeastern University has identified some of these promising strategies. It would be most unfortunate if the internal and external funding necessary to continue these efforts were not forthcoming. We cannot afford to lose the contribution such efforts make to the inclusion, recognition and advancement of minority and women scholars in education.

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